

Goongarrie Project Australia's next major Ni-Co development

Andrew Penkethman

Managing Director & CEO

Australian Federal Government - Major Project Status

ESG

Digbee ESG"

Disclaimer

Important notice

This presentation contains general information only and is, or is based upon, information which has been released to ASX: Kalgoorlie Nickel Project Mineral Resource Estimate Exceeds 6 Million Tonne Contained Nickel (30 June 2023), KNP Goongarrie Hub Ore Reserve and Feasibility Study Defines +40 Year Operation with Strong Financial Metrics (5 July 2023), Kalgoorlie Nickel Project Goongarrie Hub Tenement Consolidation (17 July 2023), ARL SMM and MC to form a JV to develop KNP Goongarrie Hub ASX Announcement (29 April 2024), KNP – Goongarrie Hub Joint Venture Transaction Completion with Japanese Consortium (30 August 2024).

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This presentation contains forward-looking statements regarding the Company's resources, intentions and future business. These statements reflect current information, expectations, intentions and strategies regarding the future, and are subject to certain risks and uncertainties. Should one or more of these risks or uncertainties materialise, or should any of the underlying assumptions prove incorrect, actual results may vary from the expectations, intentions and strategies described in this presentation. Investors are cautioned not to place undue reliance on forward-looking statements, which speak only as of the date they are made. Other than where required by law, the Company is under no obligation to revise any forward looking statement to reflect events or circumstances after the date of this presentation or to reflect the occurrence of unanticipated events.

The Goongarrie Project has completed the Pre-Feasibility Study phase and has commenced programs that are part of the Definitive Feasibility Study. Though reasonable care has been taken to ensure that the facts are accurate and/or that the opinions expressed are fair and reasonable, no reliance can be placed for any purpose whatsoever on the information contained in this document or on its completeness. Actual results and developments of projects and the market development may differ materially from those expressed or implied by these forward looking statements depending on a variety of factors. A key conclusion of the Pre-Feasibility Study, which is based on forward looking statements, is that the Goongarrie Project is considered to have positive economic potential.

No stock exchange, regulation services provider, securities commission or other regulatory authority has approved or disapproved the information contained in this news release.





Multi-decade nickel-cobalt Mineral Resource¹

The largest nickel-Cobalt MRE¹ in Australia, located in Tier 1 jurisdiction

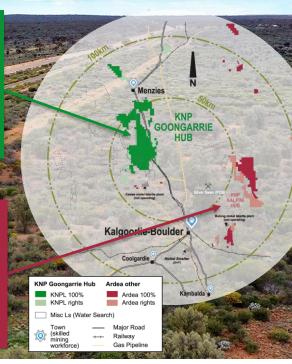


Infrastructure Advantages:

- Highway
- ✓ Fibre optic link
- Power & nearby gasRail link to 2 ports

Goongarrie Project -584Mt at 0.69% Ni and 0.043% Co for 4Mt of contained Ni and 250kt of contained Co¹ DFS fully funded by Partners ²

Kalpini – 100% ARL 270Mt at 0.74% Ni and 0.05% Co for 2Mt of contained Ni and 136kt of contained Co¹ Plus Ni Sulphide at Kalpini ³



1. See full Mineral Resource Estimate (MRE) tables in Appendix 1 of this presentation and 30 June 2023 ARL ASX Announcement. Also see GSWA rankings 20 June 2024 Flyer

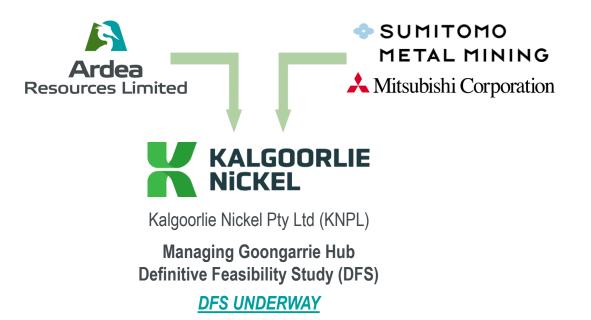
- 2. See 30 August 2024 ASX release KNP Goongarrie Hub Joint Venture Transaction Completion with Japanese Consortium
- 3. See 14 January 2022 ASX release Emu Lake Nickel Sulphide discovery confirmed with 2.72m at 5.42% Ni



Experienced international partners

Partnership validates globally significant project

Staged earn-in agreement with Sumitomo Metal Mining & Mitsubishi Corporation via sole funding of in-progress DFS up to A\$98.5M^{1,2}



Sumitomo Metal Mining (SMM) and Mitsubishi Corporation (MC), together the Consortium, fully funding DFS up to A\$98.5M to earn 35% interest in KNPL, and a further 15% interest in KNPL on Final Investment Decision (FID). Consortium to assist KNPL in optimising debt financing
 See 30 August 2024 ASX release KNP Goongarrie Hub Joint Venture Transaction Completion with Japanese Consortium





ESG Sumitomo Metal Mining and Mitsubishi Corp Diabee ESG

Material scale and experience in mining, metals and finance

SUMITOMO METAL MINING

A Mitsubishi Corporation

Long Term Vision: "Become the world leader in the non-ferrous" metals industry"

Grow nickel production from 81ktpa (FY23) to 150ktpa



"Sumitomo Metal Mining Co., Ltd. (SMM) dates from the 16th century and copper processing in Japan. SMM is an integrated producer spanning from mineral resources development, smelting & refining, to the production of battery materials and functional materials. For nickel, its strength lies in HPAL (High Pressure Acid Leach). SMM successfully developed and operates two HPAL operations in the Philippines, at Coral Bay and Taganito."



Active in Australia for ~70 years

"Mitsubishi Corporation operates a wide range of businesses spanning multiple industries and overseen by eight industry-specific business groups: Environmental Energy, Materials Solution, Mineral Resources, Urban **Development &** Infrastructure, Mobility, Food Industry, Smart-Life Creation, and Power Solution."

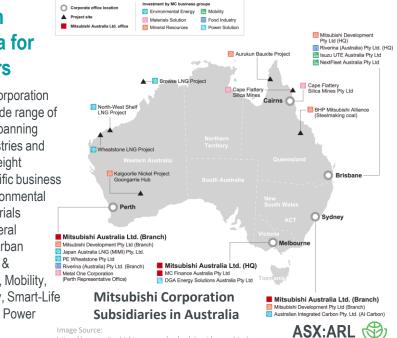
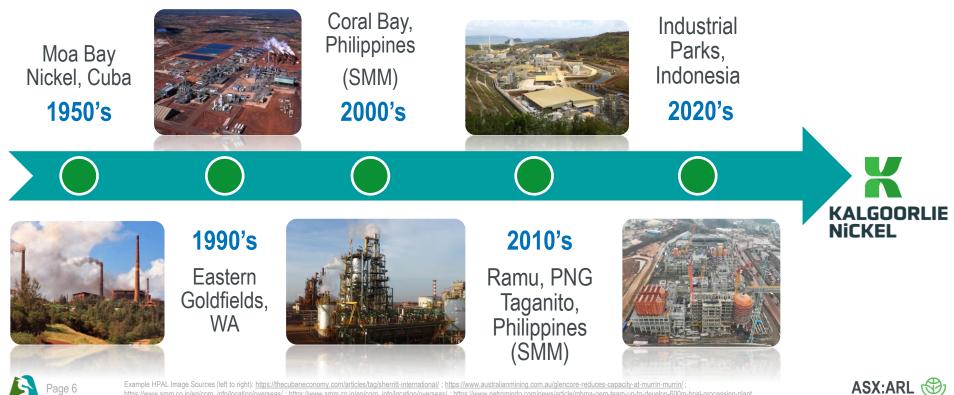


Image Source: https://www.mitsubishicorp.com/au/en/about/group.html

Proven, mature, "off the shelf" technology

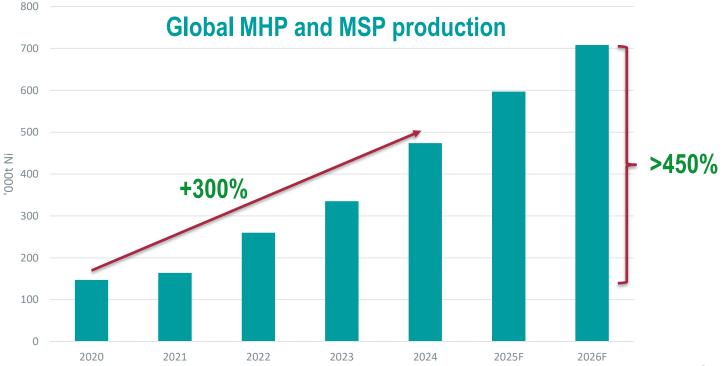
HPAL now into 5th generation of technical advances



https://www.smm.co.jp/en/corp_info/location/overseas/_: https://www.smm.co.jp/en/corp_info/location/overseas/_: https://www.petromindo.com/news/article/mbma-aem-team-up-to-develop-600m-hpal-processing-plani



Rapid growth in HPAL nickel production since 2020





Source: Company reports, Ferroalloynet, Macquarie Commodities Strategy, March 2025





Global industry has moved on from the "WA perception"

- Project partners have deep experience in HPAL, mega project development, and operations.
- Demonstrated peer project delivery and ramp-up
- Major partners DFS funding allows a quality study aligned with scale of project
- Vendor HPAL experience has grown materially
- Consistent ore means reliable, cost-competitive operation





Battery demand to grow 7-fold by 2040

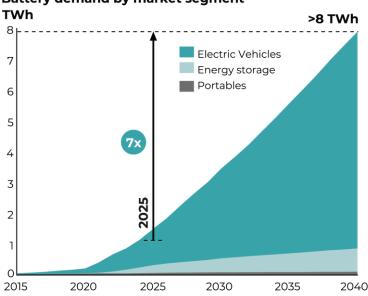
Nickel demand continues to grow via emerging markets and the evolving energy transition

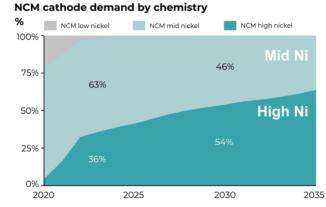
- Record 17 million Electric Vehicles (EV) sales for 2024, global EV sales grew by 25% in 2024 compared to 2023¹
- The EV market started 2025 with 18% growth, and 1.3 million units sold January 2025²
- 13.6GWh Global energy storage grid deployments January 2025, representing 94% year on year increase³

Increasing stainless steel and battery demand, along with growth in high-nickel cathodes will continue to expand nickel demand

 EV Statistics from Rho Motion 14 January 2025
 EV Statistics from Rho Motion 14 February 2025
 Rho Motion Energy 1 March 2025

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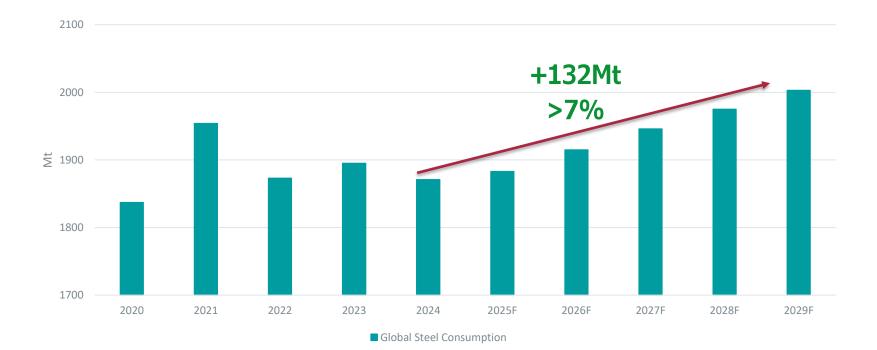
Graphs after: © Benchmark Mineral Intelligence, updated 11 February 2025; Used with permission



Battery demand by market segment



Growing Indian production & demand offsets China

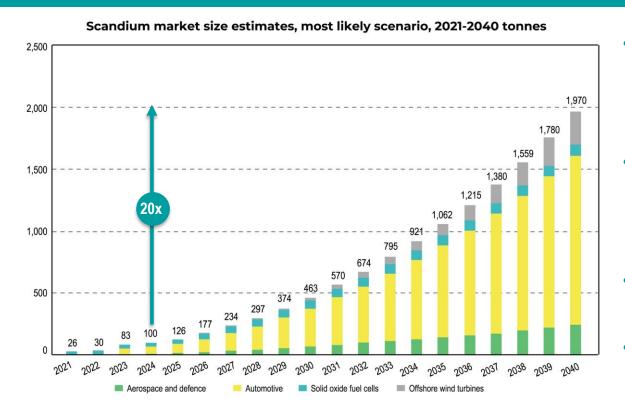








Potential for Scandium by-product¹



- Increasing global interest in security of supply following China's addition of the element to export control list
- Scandium as an alloy, increases the strength of aluminium, reduces its weight and improves other qualities
- Scandium plays an important role in Solid Oxide Fuel Cells
- Scandium alloy in powders for 3D printing is a rapidly growing market



Published on mining.com.au Oct 2024, source Internal EY market study 2022 1. Scandium was not considered in ARL 5 July 2023 PFS





Production is aligned with forecast nickel market deficits towards end of decade



With global uncertainty increasing, Goongarrie Hub's forecast scale & long life provides strategic benefits:

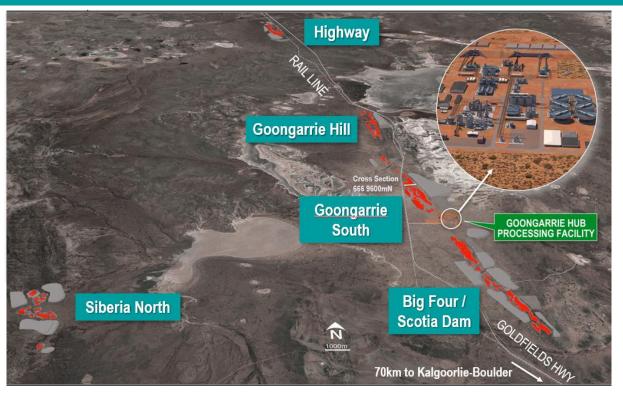
- ✓ security of supply chain
- ✓ geographic diversification





+40 year¹ project, significant growth potential

Nationally strategic KNP Goongarrie Hub to strengthen the battery minerals supply chain for decades



2023 PFS¹

- Average 30ktpa Ni and 2ktpa Co
- +40 years forecast operation

Growth opportunities

- Only 6 of 9 deposits, hosting ~76% of
 Goongarrie Hub contained Ni Resource,
 considered in 2023 Ore Reserve^{1,2}
 - Potential for project expansion or life extension
- Goongarrie DFS investigating flow sheet optimisation
 - ✓ Potential for capacity expansion

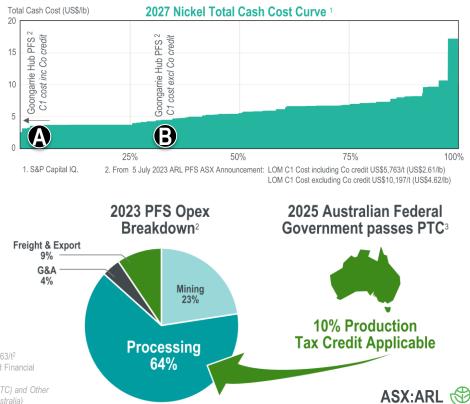


Goongarrie advantages provide margin through nickel price cycles

- PFS² Low C1 Opex before Cobalt credit of US\$10,197/t Ni (US\$4.62/lb) in MHP LOM compares well with Indonesian Opex
- Australia's recently approved tax credit³:
 - Provides 10% refund against processing costs (64% of PFS Opex estimate²) for first decade
 - ✓ Not included in PFS financial analysis
- KNP Goongarrie Hub **low cost** and **long mine life**, mean the project will be able to operate throughout the commodity price cycles.

See Appendix 2 and 5 July 2023 ARL PFS ASX Announcement (A) LOM C1 Cost including Co credit US\$5,763/t²
 (B) LOM C1 Cost excluding Co credit US\$10,197/t² NB: Project MRE, Ore Reserve, Production, Operational and Financial metrics are being updated as part of the in-progress DFS.

3. "Critical Minerals Production Tax Inventive" as part of The Future Made in Australia (Production Tax Credit (PTC) and Other Measures) Bill 2024 (https://www.industry.gov.au/news/incentive-critical-minerals-production-and-processing-Australia)



Near-term news flow from underway Goongarrie DFS

KNP Goongarrie DFS using high quality, global consultants







Recruiting and retaining the best people, building a skilled, passionate team **Workforce of ~60 across Ardea & KNPL with 50:50 gender split** Ardea is leading the way on gender equality

We engage early with First Nations Communities for meaningful outcomes & partnerships including Ardea's Indigenous Education Grant program

Innovative design Reducing CO₂ emissions & environmental footprint Waste heat to power, in-pit tailings disposal Strong leadership & governance Delivering a diverse, resilient and sustainable Critical Minerals supply chain Meeting global and National net zero ambitions













KNP Goongarrie Hub:

An Australian nickel project with the best possible Partners, Sumitomo Metal Mining Co., Ltd and Mitsubishi Corporation



 >40 year mine life
 with expansion potential
 Producing low cost
 ~30ktpa nickel &
 2ktpa cobalt^{1,2}
 For resilience through multiple price cycles



DFS Underway Consistent news flow with A\$98.5M

study, fully funded by project partners, in progress



Project to boost **national, state & local economy** Supporting regional communities, large workforce, suppliers & stakeholders including First Nations people



Long term supply of low cost^{1,2} Nickel-Cobalt in best jurisdiction

Ideally timed for project development into forecast nickel deficit



1. See 5 July 2023 ARL PFS ASX Announcement and Appendices of this presentation for Key Financial Metrics 2. Project Ore Reserve, production, operation and financial metrics are being updated as part of the in-progress DFS





ASX:ARL

For further information

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Keep up to date with news, videos and more at our website: www.ardearesources.com.au or follow our socials







Ardea Resources Limited

Appendix 1 Corporate, Reserves & Resources







Ardea Resources - Snapshot

Experienced Board & management, respected Partners, supportive Shareholders, tight capital structure

Top 40 Shareholders

~55% equity

Board & Management

~10% equity

\$98.5M



Mat Longworth Non-Executive Chair Experienced across exploration, project evaluation / development including KNP and corporate management



Andrew Penkethman MD & CEO

Experienced geologist with strong technical and corporate focus including discovery and strategic partner success. ASX. TSX and AIM experience



Maree Arnason Non-Executive Director Highly experienced director and executive in the natural

resources, energy and manufacturing sectors



Michael Rodriguez Executive Director

Metallurgist experienced in the design, construction, commissioning and operation of metallurgical operations including HPAL



Sam Middlemas Company Secretary Chartered Accountant experienced in providing Company Secretary services



Rebecca Moylan Chief Financial Officer

Experienced CFO with expertise in financial and corporate management, accounting, project financing and contract negotiation



Ian Buchhorn Technical Executive

Mineral economist and geologist, with significant Eastern Goldfields of WA, exploration, evaluation, development and operations experience



(1) See 30 August 2024 ASX release Kalgoorlie Nickel Project (KNP) Goongarrie Hub Joint Venture Transaction Completion with Japanese Consortium (2) Unaudited. Calculated as 31 March Cash Available of \$12M (ARL March guarterly report, 29 April 2025) plus \$4.6M Sumitomo Placement (ASX Release 16 April 2025) pls \$1.2m R&D rebate (ASX Release 21 May 2025) (3) DFS funds available \$89.9M see ARL March Qtr



Market Cap \$85.2M \$0.405 Share Price 28 May 2025

210,412,915

Shares on Issue

3,513,400 Performance Rights.

3,000,000 Options

To earn 35% interest in KNP Goongarrie Hub, and can increase to 50% on successful FID¹

\$64M remaining to be expended by Consortium in DFS Funding 31 March 2025 ³

Cash

\$17.8M²

No Debt

May 2025

Consortium fully funding DFS

Ardea Exploration Pipeline Upside

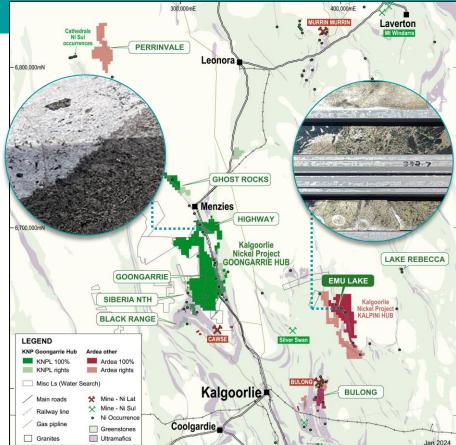
Battery and Critical Mineral exploration potential

Ardea controls ~3,500km² of tenure in the Eastern Goldfields of WA with unrivalled exploration potential

- Kalpini Project Massive nickel-copper-PGE sulphides discovered at Emu Lake (AELD0003: 2.72m at 5.42% Ni & 0.85% Cu from 391.04m) within largely untested 20km of strike¹
- EIS² hole AHID0024, beneath Highway Nickel Laterite confirms Lithium-Caesium-Tantalum mineral system² Upcoming EIS drilling will target lithium bearing pegmatites and nickel sulphides
- Ardea retain 100% ownership of non-Goongarrie Hub KNP projects (with MRE 270Mt at 0.74% Ni and 0.05% Co for 2Mt of contained Ni & 136kt of containted Co)⁴ providing an internal pipeline for future growth of laterite resources and other commodities
- Scandium and Rare Earth Elements (REE) identified at Ardea's KNP Kalpini tenure³



See 14 Jan 2022 ARL ASX Announcement
 See 14 Mar 2022 ARL ASX Announcement
 See 15 Dec 2023 ARL ASX Announcement. EIS is State Government Exploration Incentive Scheme
 See full MRE tables in Appendix 1 and 30 June 2023 ARL ASX Announcement



Appendix 1 - Competent Persons

Information in this presentation has been summarised from ARL ASX MRE Announcement 30 June 2023, ARL ASX PFS Announcement 5 July 2023 and ARL ASX Consortium Announcement 26 April 2024, 14 August 2024 and 30 August 2024.

Resource Estimation, Exploration Results, and Industry Benchmarking

The Resource Estimation, Exploration Results and Industry Benchmarking summaries are based on information reviewed or compiled by Mr Ian Buchhorn, and Mr Andrew Penkethman. Mr Buchhorn is a Member of the Australasian Institute of Mining and Metallurgy and Mr Penkethman is a Fellow of the Australasian Institute of Mining and Metallurgy and Mr Penkethman are full-time employees of Ardea Resources Limited and have sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as a Competent Person as defined in the 2012 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'.

Mr Buchhorn and Mr Penkethman have reviewed this press release and consent to the inclusion in this report of the information in the form and context in which it appears. Mr Buchhorn and Mr Penkethman own Ardea shares.

Ardea wishes to clarify that its current Kalgoorlie Nickel Project (KNP) Mineral Resource Estimate (MRE) following JORC Code (2012) guidelines is:

					Contained	Contained
KNP	Resource Category	Size (Mt)	Ni (%)	Co (%)	Ni (kt)	Co (kt)
	Measured	22	0.94	0.079	207	17
Kalgoorlie Nickel Project Total	Indicated	361	0.73	0.047	2,622	169
	Inferred	471	0.70	0.043	3,272	200
KNP	Grand Total	854	0.71	0.045	6,101	386

Note: 0.5% nickel cutoff grade used to report resources. Minor discrepancies may occur due to rounding of appropriate significant figures.

The Mineral Resource Estimate information shown in this ASX release has been previously released on the ASX platform by Ardea in ASX release 30 June 2023, in accordance with Listing Rule 5.8. The Mineral Resource Estimate in the above table is inclusive of the Ore Reserve shown in the table opposite.

The Company confirms that it is not aware of any new information or data that materially affects the information included in the previous market announcement noted above and that all material assumptions and technical parameters underpinning the Mineral Resource Estimate in the previous market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Persons' findings are presented have not been materially modified from the original market announcement.

Ore Reserves

Information in this presentation that relates to Ore Reserves at the Kalgoorlie Nickel Project Goongarrie Hub is based on and fairly represents information and supporting documentation compiled by Mr Jake Fitzsimons, a Competent Person who is a full-time employee of Orelogy Mine Consulting, a company engaged by Ardea. Mr Fitzsimons is a Fellow of the Australasian Institute of Mining and Metallurgy. Mr Fitzsimons has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which is being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (2012 JORC Code). Mr Fitzsimons does not hold securities in Ardea and consents to the inclusion in this announcement of all technical statements based on his information in the form and context in which they appear.

					Contained	Contained
Goongarrie Hub	Ore Reserve Category	Size (Mt)	Ni (%)	Co (%)	Ni (kt)	Co (kt)
Ore Deserve	Proven	16.7	0.96	0.09	160	15
Ore Reserve	Probable	177.4	0.68	0.05	1,204	84
	Grand Total	194.1	0.70	0.05	1,365	99

Note: Minor discrepancies may occur due to rounding of appropriate significant figures.

Full details on the Ore Reserve are available in the 5 July Ardea ASX announcement, see Section 5 and Appendix 1.

The Ore Reserve information shown in this ASX release has been previously released on the ASX platform by Ardea in ASX release 5 July 2023, in accordance with Listing Rule 5.9.

Ardea confirms that all the material assumptions underpinning the production target, and the forecast financial information derived from the production target continue to apply and have not materially changed. Noting that the PFS included the inclusion of a small amount of Inferred Mineral Resource (20Mt or 9%) spread over the Life of Mine (page 26 of Ardea 5 July 2023 PFS ASX announcement).

The Company confirms that it is not aware of any new information or data that materially affects the information included in the previous market announcement noted above and that all material assumptions and technical parameters underpinning the Ore Reserve in the previous market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Persons' findings are presented have not been materially modified from the original market announcement.





The Competent Persons (CP) for the Mineral Resources, are Mr Ian Buchhorn and Mr Andrew Penkethman, both are full-time employees of Ardea and consider the resource classification applied to the KNP resource models to reflect appropriate confidence in the input exploration data, geological interpretation and resource grade and tonnage estimates.

Various ASX market releases for the Mineral Resources described have been competed by Ardea, notably:

- 30 June 2023 'Kalgoorlie Nickel Project Mineral Resource Estimate Exceeds 6 Million Tonne Contained Nickel'.
- 16 June 2021 'Highway Nickel Deposit -Mineral Resource Estimate 92 million tonnes at 0.69% nickel and 0.038% cobalt'.
- 15 February 2021 'GNCP High Grade Resource -60 million tonnes at 1.0% nickel Sustainable Long-life Battery Metal Resource Confirmed'.

The Goongarrie Hub Mineral Resources shown in the adjacent table are inclusive of the Ore Reserves shown in this presentation.

KNP Global nickel and cobalt Mineral Resources based on a 0.5% Ni cut-off grade

					Contained	Contained
KNP Hub	Resource Category	Size (Tonnes)	Ni (%)	Co (%)	Ni (kt)	Co (kt)
Goongarrie Hub	Measured	18,200,000	0.94	0.085	171	15
	Indicated	276,500,000	0.70	0.046	1,923	127
	Inferred	289,300,000	0.67	0.037	1,951	108
	Sub Total	584,000,000	0.69	0.043	4,044	250
Kalpini Hub	Indicated	15,900,000	1.06	0.055	169	9
	Inferred	113,600,000	0.76	0.047	859	53
	Sub Total	129,500,000	0.79	0.048	1,028	62
Yerilla Hub	Measured	3,800,000	0.94	0.048	36	2
	Indicated	68,400,000	0.78	0.049	531	33
	Inferred	67,800,000	0.68	0.057	462	39
	Sub Total	140,000,000	0.73	0.053	1,028	74
	Measured	22,000,000	0.94	0.079	207	17
Kalgoorlie Nickel Project Total	Indicated	360,800,000	0.73	0.047	2,622	169
	Inferred	470,700,000	0.70	0.043	3,272	200
KNP	Grand Total	853,500,000	0.71	0.045	6,101	386





KNP Goongarrie Hub nickel and cobalt Mineral Resources based on a 0.5% Ni cut-off grade

KNP Goongarrie Hub MRE

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- 15 February 2021 'GNCP High Grade Resource -60 million tonnes at 1.0% nickel Sustainable Long-life Battery Metal Resource Confirmed'.

The Goongarrie Hub Mineral Resources shown in the adjacent table for the Goongarrie South, Highway, Goongarrie Hill, Big Four, Scotia Dam and Siberia North deposits are inclusive of the Ore Reserves shown in this presentation.

Prospect	Resource	Size	Ni	Со	Contain	ed Metal	E	Estimation De	etails	
	Category	(Mt)	(%)	(%)	Ni (kt)	Co (kt)	Method	Source	Year	
Cooperatio	Measured	18	0.94	0.085	171	15	LUC	Ardea	2021	
Goongarrie South	Indicated	82	0.71	0.049	584	40	LUC	Ardea	2021	
	Inferred	10	0.64	0.033	61	3	LUC	Ardea	2021	
Highwoy	Indicated	71	0.69	0.038	487	27	LUC	Ardea	2023	
Highway	Inferred	21	0.67	0.04	141	8	LUC	Ardea	2023	
Ghost Rocks*	Inferred	47	0.66	0.042	312	20	OK	Snowden	2004	
Cooperatio	Indicated	40	0.65	0.037	259	15	LUC	Ardea	2021	
Goongarrie Hill	Inferred	29	0.6	0.025	176	7	LUC	Ardea	2021	
Die Court	Indicated	49	0.71	0.047	346	23	LUC	Ardea	2021	
Big Four	Inferred	14	0.68	0.043	96	6	LUC	Ardea	2021	
Castia Dam	Indicated	12	0.71	0.065	82	7	LUC	Ardea	2021	
Scotia Dam	Inferred	5	0.72	0.043	37	2	LUC	Ardea	2021	
	Measured	18	0.94	0.085	171	15				
Goongarrie	Indicated	253	0.69	0.044	1,758	112				
Subtotal	Inferred	127	0.65	0.037	823	47				
	Combined	398	0.69	0.044	2,753	175				
Siberia South*	Inferred	81	0.65	0.033	525	27	OK	Snowden	2004	
Ciboria North	Indicated	14	0.72	0.042	102	6	Ni (UC), Co (OK)	Snowden	2009	
Siberia North	Inferred	72	0.74	0.034	534	25	Ni (UC), Co (OK)	Snowden	2009	
Diask Danas*	Indicated	9	0.67	0.09	62	8	OK	HGMC	2017	
Black Range*	Inferred	10	0.69	0.1	68	10	OK	HGMC	2017	
	Indicated	24	0.7	0.061	165	14				
Siberia Subtotal	Inferred	163	0.69	0.038	1,127	61				
	Combined	186	0.69	0.04	1,292	75				
	Measured	18	0.94	0.085	171	15		- Mineral Res		
KNP Goongarrie	Indicated	277	0.7	0.046	1,923	127	are not considered in 2023 F			
Hub TOTAL	Inferred	289	0.67	0.037	1,951	108				
	Combined	584	0.69	0.043	4,044	250		ACY	:ARL 🛛	



KNP Goongarrie Hub Ore Reserve Summary

KNP Goongarrie Hub Ore Reserve Summary consisting of ore above 0.5% Ni as the feed stock for the processing facility, and ore as Mineralised Neutraliser above 0.25% Ni and LOI above 25%

Notes:

- The Ore Reserve is reported in accordance with JORC Code 2012.
- Ore reserves are reported at a cut-off of 0.5% Ni for primary feed stock to the processing facility, plus mineralised neutraliser as ore at a cut-off of 0.25% Ni and Loss on Ignition (LOI) above 25%.
- The Ore Reserve was evaluated using a base price of US\$22,000/t for Ni and US\$51,000/t for Co at 85% payable for a Mixed Hydroxide Precipitate (MHP) product, and an exchange rate 0.69 USD/AUD.
- · Ore Reserves account for mining dilution and mining ore loss.
- · Ore Reserves are reported on a Dry Tonnage Basis.
- Proven Ore Reserves are based on Measured Mineral Resources only and Probable Ore Reserves are based on Indicated Mineral Resources only.
- · The sum of individual amounts may not equal due to rounding.
- This Ore Reserve estimate is for a subset of the KNP Goongarrie Hub deposits Mineral Resources, being Goongarrie South, Big Four / Scotia Dam, Goongarrie Hill, Highway and Siberia North. Those Mineral Resources are inclusive of the Ore Reserves shown in this table.
- The Ore Reserve Summary was detailed in ARL ASX PFS Announcement, 5 July 2023.

	Ore >= 0.5% Ni					Ore > 0.25% Ni and LOI > 25%				Total Ore					
Deposit	Mt	Ni %	Co %	Ni kt	Co kt	Mt	Ni %	Co %	Ni kt	Co kt	Mt	Ni %	Co %	Ni kt	Co kt
Proven															
Goongarrie South	16.7	0.96	0.09	160	15	0.05	0.43	0.03	0.20	0.01	16.7	0.96	0.09	160	15
Sub-total	16.7	0.96	0.09	160	15	0.05	0.43	0.03	0.20	0.01	16.7	0.96	0.09	160	15
Probable	Probable														
Big Four/Scotia Dam	34.9	0.76	0.07	265	23	0.8	0.38	0.04	3	0	35.7	0.75	0.06	268	23
Goongarrie South	33.6	0.79	0.07	265	23	1.8	0.40	0.03	7	1	35.4	0.77	0.07	272	24
Goongarrie Hill	15.8	0.70	0.04	110	7	0.1	0.44	0.02	0	0	15.9	0.70	0.04	111	7
Highway	54.0	0.70	0.04	380	22	27.2	0.39	0.01	106	4	81.2	0.60	0.03	486	26
Siberia North	9.2	0.74	0.05	68	4	-	-	-	-	-	9.2	0.74	0.05	68	4
Sub-total	147.4	0.74	0.05	1,087	79	29.9	0.39	0.02	117	5	177.4	0.68	0.05	1,204	84
PROVEN AND F	PROBABL	E TOTAL													
Big Four/Scotia Dam	34.9	0.76	0.07	265	23	0.8	0.38	0.04	3	0	35.7	0.75	0.06	268	23
Goongarrie South	50.2	0.85	0.08	425	38	1.9	0.40	0.03	7	1	52.1	0.83	0.07	432	39
Goongarrie Hill	15.8	0.70	0.04	110	7	0.1	0.44	0.02	0	0	15.9	0.70	0.04	111	7
Highway	54.0	0.70	0.04	380	22	27.2	0.39	0.01	106	4	81.2	0.60	0.03	486	26
Siberia North	9.2	0.74	0.05	68	4	-	-	-	-	-	9.2	0.74	0.05	68	4
TOTAL	164.1	0.76	0.06	1,247	94	30.0	0.39	0.02	117		194.1	0.70	0.05	1,365	99







Appendix 2 2023 PFS

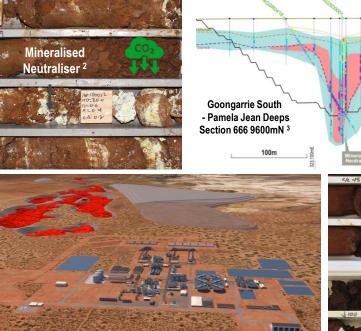


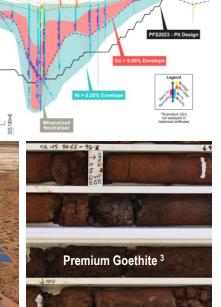




Unique characteristics drive low cost

Potential lowest cost producer thanks to KNP Goongarrie Hub ore deposit characteristics & geometry





Goethite Premium Ore

- 25km continuous strike
- Mainly free-digging ore makes up ~70% of Plant Feed¹
- Low acid consumption and energy requirements¹

Conventional low-cost open pit mining

- Mining costs <12% of total OPEX¹
- Very low strip ratio of 1.8:1 (waste:ore)¹

Mineralised Neutraliser (MN)²

- Replace imported neutraliser (lime) with MN from within designed pits
 - Increased metal recovery
 - ✓ Reduced costs and emissions.
 - ✓ International Patent Application lodged²

See 5 July 2023 ARL PFS ASX Announcement. NB: Project MRE, Ore Reserve, Production, Operation & Financial numbers are being updated in current in-progress DFS
 See 16 November 2022 ARL MN ASX Announcement, Appendix 1 for assays of MN in AHID0012 20-22m photographed and 15 June 2023 ARL MN ASX Announcement
 See 8 October 2018 High-grade nickel-cobalt mineralisation extended at Goongarrie for AGSD001 as shown on cross section and in photograph for the 96-102m interval.



PFS Key Financial Metrics

PFS defines > 40-year operation with strong financial metrics¹:

- Pre-tax NPV₇ of **A\$7,625M** (IRR 30%)
- Post-tax NPV₇ of **A\$4,980M** (IRR 23%)
- Average Annual EBITDA of A\$800M
- Project pay back within 3.1 years
- Low cost after Cobalt credit of US\$5,763/t Ni in MHP LOM
- 1. See 5 July 2023 ARL PFS ASX Announcement.
- 2. Post tax.
- 3. From start of operation.

NB: Project MRE, Ore Reserve, Production, Operation and Financial numbers are being updated as part of the in-progress DFS

Financials			
Nickel Revenue	A\$ M	44,429	
Cobalt Revenue	A\$ M	7,880	
Revenue - combined	A\$ M	52,309	
EBITDA LOM	A\$ M	34,217	
EBITDA Annual (average)	A\$ M	800	
EBITDA margin	%	65%	
Net Cash Flow (Pre-tax)	A\$ M	31,100	
Valuation			
Net Present Value (NPV7)2	A\$ M	4,980	
Internal Rate of Return (IRR) ²	%	23%	
Total Capital Payback ³	years	3.1	
Assumptions			
Exchange rate	AUD:USD	0.67	
Nickel Price	US\$/t	25,000	
Cobalt Price	US\$/t	60,000	

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PFS 2023 Capital Cost Estimate

KNP – Goongarrie Hub

- Contingency considered appropriate to the level of the capital cost estimate has been included
- Base date March 2023
- Refer to 5 July 2023 ARL PFS ASX Announcement for full details and Reasonable Basis Statement

Preproduction Cost Category	Costs (A\$)
Mining – overheads, mobilisation, pre-strip and other	98M
Process plant & infrastructure	2,264M
Sulphuric acid, steam and power plant	574M
Borefield	181M
Total Capital Cost ¹	3,117M

Ardea 5 July 2023 PFS capital cost estimate based on a 3.5Mtpa processing operation consisting of x2, 1.5Mtpa HPAL autoclaves and a 0.5Mtpa Atmospheric leach circuit.





DFS Key Budget Items

The Consortium (SMM and MC) will fund 100% of the KNP Goongarrie Hub DFS costs, up to the agreed budget of A\$98.5 million

DFS Cost Centre	Costs (A\$)
Drilling	13.4M
Metallurgical Test Work	2.3M
Mine Design (incl dewatering & geotechnical)	15.0M
Process Plant Design	28.3M
Buildings and Camp Design	5.3M
Approvals	4.9M
Staff, Corporate and Other	26.2M
Other Expert Consultants	1.5M
Tenement Costs	1.6M
DFS Total Budget	98.5M





KNP Goongarrie Hub Superior HPAL Intensity

- ✓ Good ore grade + good slurry density = Lower Capex & Opex \$\$
- ✓ Atmospheric leach = stable operation, utilizes saprolite resource
- ✓ MHP & MSP Product = known technology & good market acceptance



Operating data from Australian HPAL Producers

Performance Driver	Ardea	Bulong#	Cawse#	Murrin	RNO^	Metric	Ardea Rank	Comment		
Atmospheric Leach	Yes	No	No	No	Yes	-	#1	Stable operation and full resource utilisation		
HPAL Feed Density	45%	31%	35%	38%	42%	% Solids	#1	The higher the better = Maximises plant throughput		
Residence Time	70*	75	105	90	60	minutes	#2	The lower the better = Maximises plant throughput		
Slurry Grade Ni	7.55	2.89	3.07	3.87	7.39	Ni kg/m3	#1	The higher the better = Increased revenue stream		
Slurry Grade Co	0.59	0.23	0.24	0.34	0.31	Co kg/m3	#1	The higher the better = Strategic Co-Product credits		

Data Sources: Ardea – Goongarrie Hub testwork results from PFS and Expansion Study, ASX release 28 March 2018 & Goongarrie Expansion Study, 24 July 2018 and ongoing project assessment as part of completing the DFS. Bulong, Cawse, Murrin - ALTA 1999, An Engineering Comparison of the Three Treatment Flowsheets In WA Nickel Laterite Projects. RNO – ALTA 2001, Observations from the RNO Pilot Plant at Lakefield Research, 2000 AD.

[^]Ravensthorpe Nickel Operation (RNO) figures based on design numbers on upgraded beneficiated ore from the Halleys Deposit which has since been mined out. # Bulong & Cawse – care and maintenance

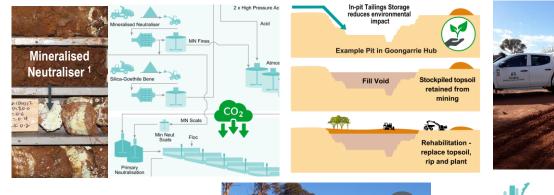
Ardea data is based on non-beneficiated material (with always an option to beneficiate selected KNP geo-met types, notably at Highway & Goongarrie Hill).

*Goongarrie Hub DFS to assess reduction in Ardea residence time from 70 minutes to 60 minutes. Residence time 45 minutes estimated in Goongarrie Expansion Study (ASX announcement 24 July 2018)



Innovated approach to elevate ESG performance

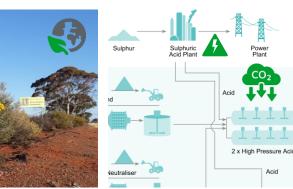
Continual improvement within a responsible ESG framework, enhanced by innovation in plant design





Climate Change Life Cycle Analysis TOTAL kg CO₂ eq per kg Ni in MHP 2 4 6 8 ¹⁰ 11.9

Minviro LCA 2023 report to Ardea - 5 July 2023 PFS



- Ardea's R&D defined MN, within designed pits. This material can replace imported neutralising material – reducing need to import lime, increasing metal recovery, reducing costs and emissions. An International Patent Application has been lodged for this process¹
- In-pit tailings storage evaporation, suited to the semi-arid environment, improving rehabilitation outcomes²
- Excess steam from Acid Plant will be fed to onsite power plant reducing CO₂ emissions²
- Life Cycle Assessment (LCA) is expected to be 11.9 kg CO₂ eq. per kg nickel in MHP based on project and upstream emissions²
- Recent "A" Score from Digbee ESG™ for Ardea and KNP activities, demonstrates continuous improvement in ESG performance³





1 See 16 November 2022 ARL MN ASX Announcement, Appendix 1 for assays of MN in AHID0012 20-22m photographed and 15 June 2023 ARL MN ASX Announcement 2. See 5 July 2023 ARL PFS ASX Announcement. 3. See 9 May 2023 ARL ESG ASX Announcement.



Ardea25 years of Goongarrie Hub stakeholderengagement and ore body knowledge

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Prelisting	2017	2018	2019	2020	2021	2022 - 2023	2024
2009 \$34.5M PFS for KNP by Vale-Inco. Provided invaluable data to help expedite Ardea feasibility studies.	KNP tenure and extensive technical database breathes new life in Ardea.	Positive 2018 1.5Mtpa PFS and 2.25Mtpa Expansion Study for KNP Goongarrie Hub. Ardea pilot plant produces quality specification nickel and cobalt sulphate.	NSW projects divested via Godolphin IPO - free in-specie shares to eligible shareholders. Study streams and approvals continue for priority KNP	KNP Flowsheet is developed and optimised. Nickel sulphide and gold targets at KNP and other tenements. Divestment on non- core tenements through JV.	Update to Goongarrie Hub high grade Ni and Co resource. Engagement with potential Strategic Partners. Ni sulphide discovery confirmed at Emu Lake. Gold projects divested via KalGold Mining IPO - free in-specie shares to eligible shareholders.	Awarded Major Project Status. Metallurgical testwork provides material type process pathways, Mineralised Neutraliser concept confirmed and patent lodged. KNP Goongarrie Hub PFS 3.5Mtpa base case including updated Ore Reserve, defines large scale, long life, and low cost Ni-Co operation. Strategic Partner search narrows to quality Japanese Consortium.	signed, the adopted A\$98.5M DFS Program & Budget now in full swing, under banner of KNPL, with support
Transfer of KNP to ARL	Feb - ARL lists on ASX	National & global significance of KNP enhanced	Ardea's divestment strategy benefits KNP and Shareholders	KNP flowsheet work,+ successful NiS & Au exploration	KNP Goongarrie Hub work pace increases, update for KNP Mineral Resource. Emu Lake NiS discovery	KNP MRE increases and KNP Goongarrie Hub PFS 3.5Mtpa base case indicates >40year mine life Non-binding MOU with Japanese Consortium confirms global status	DFS underway with quality international partners

KNP Mineral Resource

773Mt @ 0.70% Ni and 0.05% Co

830Mt @ 0.71% Ni and 0.046% Co

Update in Progress as part of Definitive Feasibility Study (DFS)

854Mt @ 0.71% Ni and 0.045% Co







Appendix 3 KNPL









Partnership validates KNP Goongarrie Hub's global significance as a desirable Critical Minerals source



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^ See 30 June 2023 ARL MRE announcement. Or see Appendix 2 in this presentation

* See 30 August 2024 ASX release KNP Goongarrie Hub Joint Venture Transaction Completion with Japanese Consortium.

____ SMM and MC, together the Consortium, fully funding DFS up to A\$98.5M to earn 35% interest in KNPL, and a further 15% interest in KNPL

³⁵ on positive Final Investment Decision (FID). Consortium to assist KNPL in optimising debt financing